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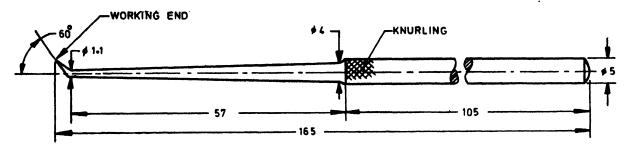


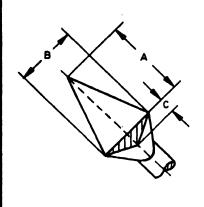


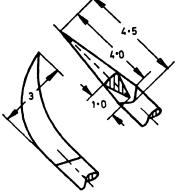
Indian Standard

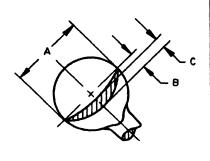
SPECIFICATION FOR KNIFE, MEATAL SKIN INCISION

- 1. Scope Specifies material, dimensions and other requirements for meatal skin incision knife used in microsurgery.
- 2. Shape and Dimensions As shown in Fig. 1.









A	В	С
3.2	2.5	1
2.0	2·0	0.9
1.5	1.7	0.3
1A	Sharp Working	na End

1B Sickle Shaped Working End

A B C 3:0 0:75 0:5 1:5 0:50 0:4 1C Round Working End

All dimensions in millimetres.
FIG. 1 KNIFE, MEATAL SKIN INCISION

- 2.1 Tolerances on linear dimensions shall be permitted as given below:
 - ± 0.1 mm on dimensions up to 5.0 mm,
 - \pm 0'2 mm on dimensions above 5'0 mm and up to 20'0 mm,
 - ± 1.0 mm on dimensions above 20.0 mm and up to 50.0 mm,
 - \pm 2.0 mm on dimensions above 50.0 mm and up to 100.0 mm, and
 - ± 2.5 mm on dimensions above 100.0 mm.
- 2.2 Tolerance on angular dimension shall be \pm 1°.
- 3. Material Stainless steel conforming to Designation 30Cr13 of IS: 6603-1972 'Specification for stainless steel bars and flats'.
- 4. Workmanship and Finish
- 4.1 The knife shall be forged in one piece to the required shape and size.
- 4.2 The knife shall be free from pits, dents, burrs, scales and other surface defects when inspected using normal corrected vision.

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- 4.3 The handle shall provide a proper grip.
- 4.4 All edges other than the cutting edge shall be even and rounded.
- 4.5 The cutting edge of the knife shall be surgically sharp. It shall be free from feathers, nicks, high spots, waviness or undulation when examined under a magnification of 30X.
- 4.6 The knife shall be passivated and matt finished.
- **4.6.1** The knife shall be passivated by treating in 10 percent (v/v) nitric acid solution for not less than 30 minutes at a temperature of not less than 10°C and not exceeding 60°C. The knife shall then be rinsed in water and dried in hot air.
- 5. Heat Treatment The knife shall be hardened and tempered to a hardness of 380 to 480 HV, when tested in accordance with IS: 1501-1968 'Method for Vickers hardness test for steel (first revision)'.

6. Tests

6.1 Sharpness of the Cutting Edge — With the application of light pressure, the knife shall be made to cut a piece of chamois leather. Five such cuts, approximately, 100 mm long, shall be made. The knife shall cut the chamois leather neatly and without pulling the leather.

After the test, the cutting edge of the knife shall be examined to conform to the requirement of 4.5.

6.2 Corrosion Resistance — The knife shall be subjected to the test as specified in IS: 7531-1975 'Method for boiling and autoclaving test for corrosion resistance of stainless steel surgical instruments'.

It shall show no sign of corrosion after the test.

- 7. Marking The handle of the knife shall be marked legibly and indelibly with the manufacturer's name, initials or registered trade-mark, the country of manufacture, and the words 'Stainless Steel' or the letters 'SS'.
- 7.1 ISI Certification Marking Details available with the Indian Standards Institution.
- 8. Packing Each knife shall be wrapped in a moisture-proof paper or packed in a polyethylene bag. Each knife shall be packed in an individual carton in such a way that its cutting edge is protected from coming in contact with hard surface resulting in any damage.

Note - The knife shall be thoroughly cleaned, preferably ultrasonically and dried before packing.

AMENDMENT NO. 1 JANUARY 1994 TO

IS 10726: 1983 SPECIFICATION FOR KNIFE, MEATAL SKIN INCISION

(Page 2, clause 5) --- Substitute the following for the existing clause:

"5 Heat Treatment — The knife shall be hardened and tempered to a hardness of 380 to 480 HV when tested in accordance with IS 1501 (Part 1): 1984 'Method for Vickers hardness test for metallic materials: Part 1 HV 5 to HV 100 (second revision)"."

(Page 2, clause 6.2) — Substitute the following for the existing clause:

'6.2 Corrosion Resistance — The knife shall satisfy the requirements of IS 7531: 1990 'Methods for testing of corrosion resistance of stainless steel surgical instruments (first revision)'.''

(MHD4)	
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